

IN THE CLAIMS:

The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended). A sintered metal rotor of a rotary piston pump, in particular a rotary piston pump for generating a vacuum of a vacuum brake booster of a motor vehicle, where the brake booster can be connected to a vacuum pump intake connection, with a pot-shaped base body (1) and a bearing journal element which protrudes centrally from the bottom of this base body (1) from a cylindrical foot area coming directly out of the bottom and a connecting claw section (2) to be connected to it for a coupling element to be attached, comprising the features

- the connecting claw section (2) is designed in the form of two protruding individual webs (3),
- the individual webs (3) are diametrically opposed in the outside circumferential area of the cylindrical base section in

an area limited to max. 100° at the circumference and radially to max. 25% of the diameter of the cylindrical base section, and
~~= the two connecting claw individual webs (3) are press-sintered by sintering compression rams that are designed based on the cross-sectional area and are separately operable by the other sintering compression rams that are necessary to create the rotor.~~

the rotor has the structure of a one piece, press-sintered rotor with differently compressed regions, whereby the individual webs (3) are compressed to a sufficient degree for the material stability required in each region.

Claim 2. (Previously Presented). The rotor according to Claim 1,

wherein the two individual webs (3) have the same size and shape.

Claim 3. (Previously Presented). The rotor according to Claim 1, .

wherein the circumferential area assumed by an individual web (3) is limited to max. 90°.

Claim 4. (Previously Presented). The rotor according to Claim 1,

wherein the area assumed radially by the individual webs (3) is limited to max. 20% of the cylindrical base section.

Claim 5. (Previously Presented). The rotor according to Claim 1,

wherein the individual webs (3) of the connecting claw section are case-hardened in edge profiles.

Claim 6. (Previously Presented). The rotor according to Claim 1,

wherein the case-hardening in edge profiles is inductively generated.

Claim 7. (Previously Presented). The rotor according to Claim 1, wherein the edge-hardened area is shock cooled.

Claim 8. (Previously Presented). The rotor made of as the sintered metal according to Claim 1,

wherein the individual webs (3), including at least one transitional area directly adjacent in the direction of the rotor base body, contain copper that has been infiltrated subsequently into the pressed sintered structure.

Claim 9. (Previously Presented). The rotor according to Claim 8,

wherein a single web (3) enriched with copper has a specific gravity of at least 7.5 g/cm³.

Claim 10. (Previously Presented). The rotor according to Claim 9,

wherein the specific gravity is greater than 7.8 g/cm³.

Claim 11. (Previously Presented). The rotor according to Claim 10,

wherein the specific gravity is at least 7.9 to 8.0 g/cm³.

Claim 12. (Currently Amended). ~~A sintered coupling element of a rotor~~ The rotor according to Claim 1, having a sintered coupling element,

wherein the coupling element has a cross section that has been adapted to the development of the connecting claw section

(2) with a rod-shaped torque abrasion area in the form of an elongated web (10).

Claim 13. (Previously Presented). A method for producing a rotor according to Claim 1,

wherein separate rams assigned to the individual webs (3) according to cross section are provided with a separate pressure acting on them in a sintering compression mold for producing the sintered rotor.

Claim 14. (Previously Presented). The method for manufacturing a rotor according to Claim 13,

wherein copper that is present in infiltrated form at least in the individual webs (3) penetrates out of a superficially copper layer applied at least to the individual webs (3) and into the sintered structure during the sintering heat treatment.